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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,035	08/16/2000	David Wallman	SUN1P275/P4783	3756

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EXAMINER

KANG, INSUN

ART UNIT PAPER NUMBER

2193

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/641,035	Applicant(s) WALLMAN, DAVID	
	Examiner Insun Kang	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005 and 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-10, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10, 28, and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the RCE amendment filed 11/18/2005 and 1/17/2006.
2. As per applicant's request, claims 2 and 11-27 have been cancelled, claim 1 has been amended and claims 28 and 29 have been added. Claims 1, 3-10, 28, and 29 are pending in the application.

Claim Objections

3. Claims 3 and 5-7 are objected to because of the following informalities: The parent claim 2 had been cancelled. The claims are interpreted as "in claim 1" in each line 1. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Although the independent claim starts out reciting a "computer system," the computer system "is capable of operating" the program instructions that are disembodied arrangements so as to be called a "computer program" or compilation of facts, information, or data *per se*, without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by a computer ("acts") or computer readable medium so as to enable the computer to perform the claimed instructions. With no other structure in the independent claim to

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rely on, the alleged "computer system" of the independent claim turns out to be non-statutory for being a computer program per se. Further, causing an action or an intended action is different from actually performing an action. Being capable of operating something does not necessarily mean that the operating step is actually performed. Therefore, the operations in the program instructions are only intended actions. Thus the claim represents a non-functional descriptive material that is not capable of producing a useful result, and hence represents only abstract ideas. Therefore, the claim is non-statutory.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3-10, 28, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Lethin et al. (U.S. PG. Pub. 20020147969) hereafter Lethin.

Per claim 1:

Lethin discloses:

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-obtaining, by an interpreter, a virtual machine a program instruction to be executed by the virtual machine (i.e. a computer architecture emulation system...interpreter for individually translating source object code into corresponding translated object code," 0011)

-determining by the interpreter whether the program instruction is a branch instruction (i.e. the interpreter...first checks for a compiled code entry point for the branch destination...whether the segment at issue has been previously compiled," 0163; 0149)

-determining by the interpreter whether a basic block is present in a code cache that stores native code corresponding to virtual machine program instructions when it is determined that the program instruction is a branch instruction, wherein the basic is associated with a case block of the interpreter associated with the virtual machine program instruction and the basic block includes native code that has been previously interpreted and executed by the interpreter, the code cache being associated with the virtual machine (i.e. determines if there is a match between the branch and the plurality of branches stored in the L1 cache," 0164; "If the correct branch is not in the cache...then flow proceeds to step S408 and ...the record containing all fields which may be updated," 0168; "the branch information makes step S404 faster because the interpreter 110 is likely to execute the same branch again," 0169)

-executing by the interpreter the code included in the basic block from said code cache when it is determined that the basic block is present in the code cache and the program instruction is a branch instruction(i.e. determines if there is a match between the branch and the plurality of branches stored in the L1 cache," 0164; "If the correct branch is not

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in the cache...then flow proceeds to step S408 and ...the record containing all fields which may be updated," 0168; "the branch information makes step S404 faster because the interpreter 110 is likely to execute the same branch again," 0169)

-interpreting by the interpreter the virtual machine instruction when said determining determines that the basic block associated with the case block of the interpreter is not present in said code cache, wherein said interpreting generates native code for the virtual machine instruction; copying the native code generated by the interpreter into said code cache after the interpreting of the code by the interpreter when said determining determines that the basic block associated with the case block of the interpreter is not present in said code cache (i.e. determines if there is a match between the branch and the plurality of branches stored in the L1 cache," 0164; "If the correct branch is not in the cache...then flow proceeds to step S408 and ...the record containing all fields which may be updated," 0168; "the branch information makes step S404 faster because the interpreter 110 is likely to execute the same branch again," 0169).

Per claim 3:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

-allocating space in the code cache for the code corresponding to the program instruction ; providing the code corresponding to the program instruction with a label (i.e. 0164; 0168; 0169).

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Per claim 4:

The rejection of claim 3 is incorporated, and further, Lethin teaches placing the label in a table of labels (i.e. 0164; 0168; 0169).

Per claim 5:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

-searching through a table of labels to determine if a target associated with the program Instruction has a matching label in the table of labels (i.e. 0164; 0168; 0169).

Per claim 6:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

the program instruction is a bytecode, and wherein the bytecode is executed by an interpreter of the virtual machine (i.e. 0164; 0168; 0169).

Per claim 7:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

the code cache is a native code cache, and the code corresponding to the program instruction is native code (i.e. 0164; 0168; 0169).

Per claim 8:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

the program instruction is a bytecode and the code cache is a native code cache (i.e. 0164; 0168; 0169).

Per claim 9:

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The rejection of claim 1 is incorporated, and further, Lethin teaches:

-interpreting the bytecode when the determining determines that the program instruction is not a branch instruction(i.e. 0164; 0168; 0169).

Per claim 10:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

-computing a target using the program instruction, wherein the determining of whether the basic block is present in the code cache includes determining if the code cache includes any basic blocks which correspond to the target (i.e. 0164; 0168; 0169).

Per claim 28, this is the computer system version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 29, this is the computer readable medium version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Response to Arguments

8. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724.

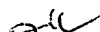
The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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